8. In a machine-gun, the combination, with a longitudinally-movable breech-block and breech mechanism connected therewith, of a piston secured to the breech-block and working in said cylinder, a chamber communicating with the rear of the cylinder, and intermediate adjustable valves for controlling or varying the channels of communication between the cylinder and the chamber, as and for the purto pose specified.

9. The combination, with the longitudinally-movable breech-block C, and breech mechanism connected therewith, of the pistion q, extending from the rear end of the same, the cylinder Q, in line with the breech-block, in which said piston works, the chamber R, communicating with the rear portion of the cylinder Q, and the adjustable valve r, for controlling or varying the channel of communication between the cylinder Q and the chamber R, as set forth.

10. In a machine-gun, the combination, with the barrel, a longitudinally-movable breechblock, and the breech mechanism connected therewith, of the spiral springs D, connected 25 to the frame, bridge-piece d, connected to the opposite ends of said springs, and rods C, connecting said bridge-piece with the forward end of the breech-block so that the distention of the springs is caused by the backward movement of the breech-block, as and for the purpose specified.

In testimony whereof I have hereunto signed my name in the presence of two subscribing

witnesses.

## HIRAM STEVENS MAXIM.

Witnesses:

J. WATT, T. J. OSMAN,

Both of 17 Gracechurch St., London.